

**BASE Buildings HVAC Characteristics:** Frequency of Cleaning for HVAC Components

Frequency of Cleaning	Air Handler Housing <sup>1</sup>	Heating and Cooling Coils <sup>2</sup>	Drain Pans <sup>3</sup>	Air Distribution Ductwork <sup>4</sup>	Humidifiers <sup>5</sup>	Evaporative Coolers <sup>6</sup>	Air Washers <sup>7</sup>	Cooling Towers <sup>8</sup> (surface cleaning)
None	36	13	14	77	7	0	0	1
As Needed	17	25	24	16	14	1	1	9
Daily	0	0	0	0	0	0	0	0
Weekly	0	0	0	0	0	0	0	0
Bi-Weekly	0	0	0	0	0	1	0	0
Monthly	2	0	1	0	0	0	0	2
Semi-Quarterly	0	0	0	0	1	0	0	1
Quarterly	14	5	7	1	3	0	0	7
Semi-Annually	4	8	10	0	3	0	0	10
Annually	24	47	40	2	8	5	0	36
Total Number of Buildings Reporting	97	98	96	96	36	7	1	66

**Notes:**

<sup>1</sup>Data represent 97 BASE buildings, which indicated a cleaning frequency for air handling unit-housing cleaning. For one building, the response was left blank.

<sup>2</sup>Data represent 98 BASE buildings, which indicated a cleaning frequency for heating and cooling coils.

<sup>3</sup>Data represent 96 BASE buildings, which indicated a cleaning frequency for drain pans.

<sup>4</sup>Data represent 96 BASE buildings, which indicated a cleaning frequency air distribution duct work.

<sup>5</sup>Data represent 36 BASE building, which indicated a cleaning frequency for humidifiers.

<sup>6</sup>Data represent 7 BASE buildings, which indicated a cleaning frequency for evaporative coolers.

<sup>7</sup>Data represent 1 BASE buildings, which indicated a cleaning frequency for air washers.

<sup>8</sup>Data represent 66 BASE buildings, which indicated a cleaning frequency for cooling towers.

Variable Descriptions:

**Air Handler Housing** refers to the cleaning frequency of the air handling housing. The housing is a casing that is usually made up of galvanized sheet metal that contains the air handling unit components.

**Cooling Coils** refers to the cleaning frequency of the air handling unit cooling coils.

**Heating Coils** refers to the cleaning frequency of the air handling unit heating coils.

**Drain Pans** refers to the cleaning frequency of the cooling coil condensate drain pans. The drain pan is generally located under the cooling coil to collect and drain away water vapor that condenses on the cooling coil.

**Air Distribution Ductwork** refers to the cleaning frequency of the air handling unit air distribution ductwork.

**Humidifiers** refers to the cleaning frequency of humidifiers.

**Evaporative Coolers** refers to the cleaning frequency of evaporative coolers. Evaporative coolers are non-refrigerant systems that cool air by exchanging sensible heat for latent heat, reducing temperatures, but raising humidity.

**Air Washers** refers to the cleaning frequency of air washers. In some applications, air washers serve as evaporative coolers or humidifiers as their operating principle is similar to that of evaporative coolers. These may also be used to filter wettable dust from the airstream by drawing air through a mist (caused by spray nozzles) and then through eliminators to remove dust and the water particles not evaporated in the air.

**Cooling Towers** refers to the cleaning frequency of cooling towers. Cooling towers are used primarily to reject building heat to the atmosphere.

The frequency categories are as follows:

**None** refers to no cleaning implemented on these systems.

**As Needed** refers to a cleaning schedule where cleaning occurs only when deemed necessary.

**Daily** refers to a cleaning schedule where cleaning occurs each day.

**Weekly** refers to a cleaning schedule where cleaning occurs on a once per week.

**Bi-weekly** refers to a cleaning schedule where cleaning occurs twice a month.

**Monthly** refers to a cleaning schedule where cleaning occurs once per month.

**Semi-Quarterly** refers to a cleaning schedule where cleaning occurs twice every three months.

**Quarterly** refers to a cleaning schedule where cleaning occurs every three months.

**Semi-annually** refers to a cleaning schedule where cleaning occurs every six months.

**Annually** refers to a cleaning schedule where cleaning occurs once a year.